14th World Congress on Computational Mechanics (WCCM XIV)
8th European Congress on Computational Methods in Applied Science and Engineering (ECCOMAS 2020)
July 19- 24, 2020, Paris, France

MATHEMATICAL MODELING OF STRONGLY NONLINEAR MECHANICAL DISSIPATIVE SYSTEMS

TRACK NUMBER 900

ALEXEY A. KIREENKOV*, SERGEY I. ZHAVORONOK†

* Moscow Institute of Physics and Technology (National Research University)
Institutskiy per. 9, Dolgoprudny, Moscow Region, 141701, Russia
kireenk@ipmnet.ru, kireenk@mail.ru

†Institute of Applied Mechanics of Russian Academy of Sciences (IPRIM RAS)
Leningradskiy Prospekt 7, 125040, Moscow, Russia
Zhavoronok@iam.ras.ru

Key words: Strongly Nonlinear Dissipative Systems, Combined Dry Friction

ABSTRACT

Main goal of this Minisymposium is providing a possibility for the exchange of new ideas and results between research groups in the field of mathematical models and their implementation in the investigation for strongly nonlinear dissipative mechanical systems. Special attention will be given to examples of real dynamic problems considering interaction with dry friction, fluid-structure interaction and other similar topics. In particular, models of dry friction for combined kinematics as interacting rigid bodies participate in simultaneous relative rolling, spinning and sliding motions are of interest. Fluid-structure interaction problems are also assumed to be included in this circle of problems.

Corresponding Organizer: Alexey A. Kireenkov: kireenk@ipmnet.ru, kireenk@mail.ru